

Univerza v Ljubljani
Biotehniška fakulteta



University of Zagreb
Faculty of Agriculture



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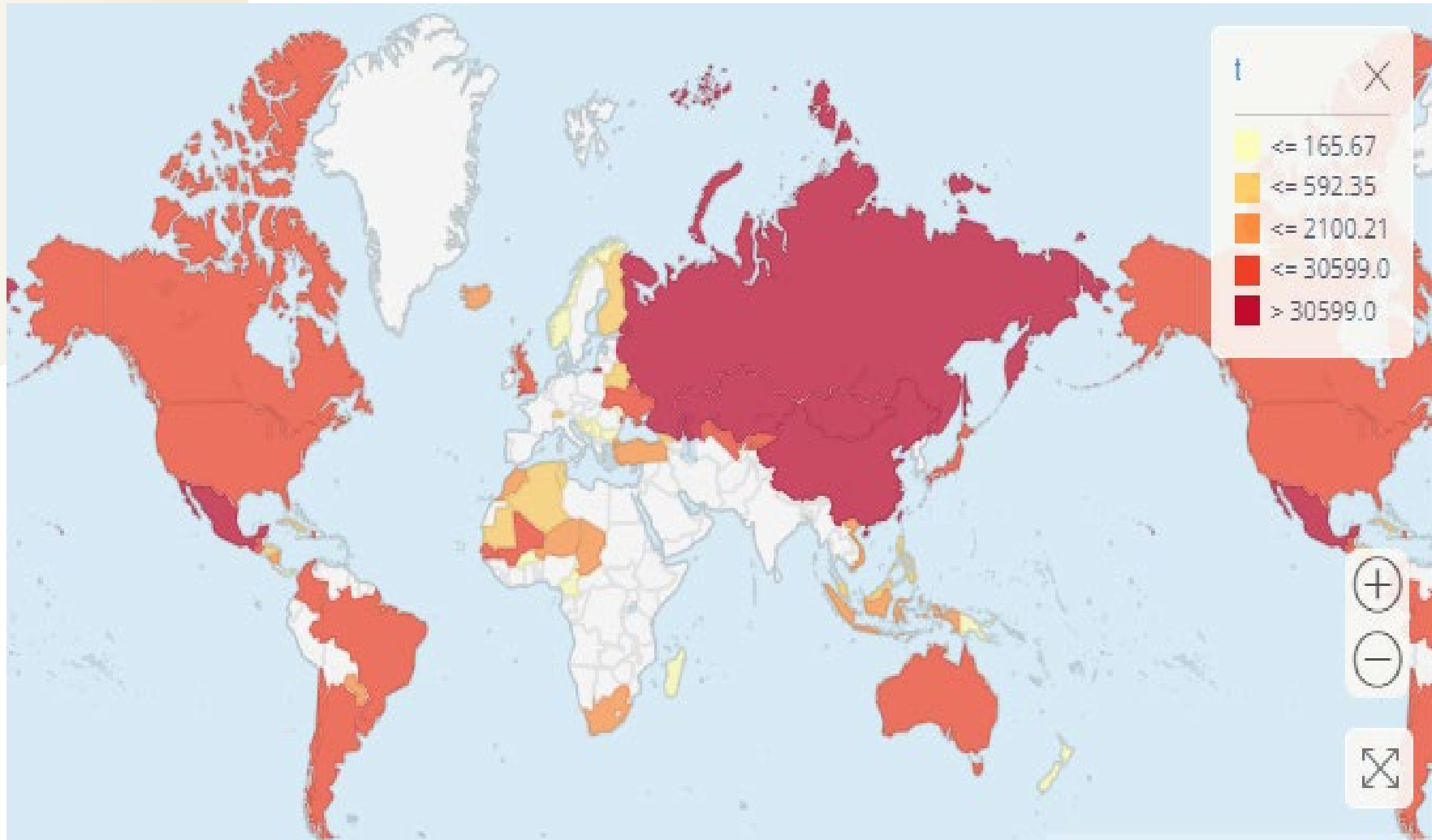


To eat or not to eat horsemeat? - a review of cultural, ethical, and practical considerations

K. Potočnik, B. Luštrek, M. Šimon, A. Kaić

Introduction

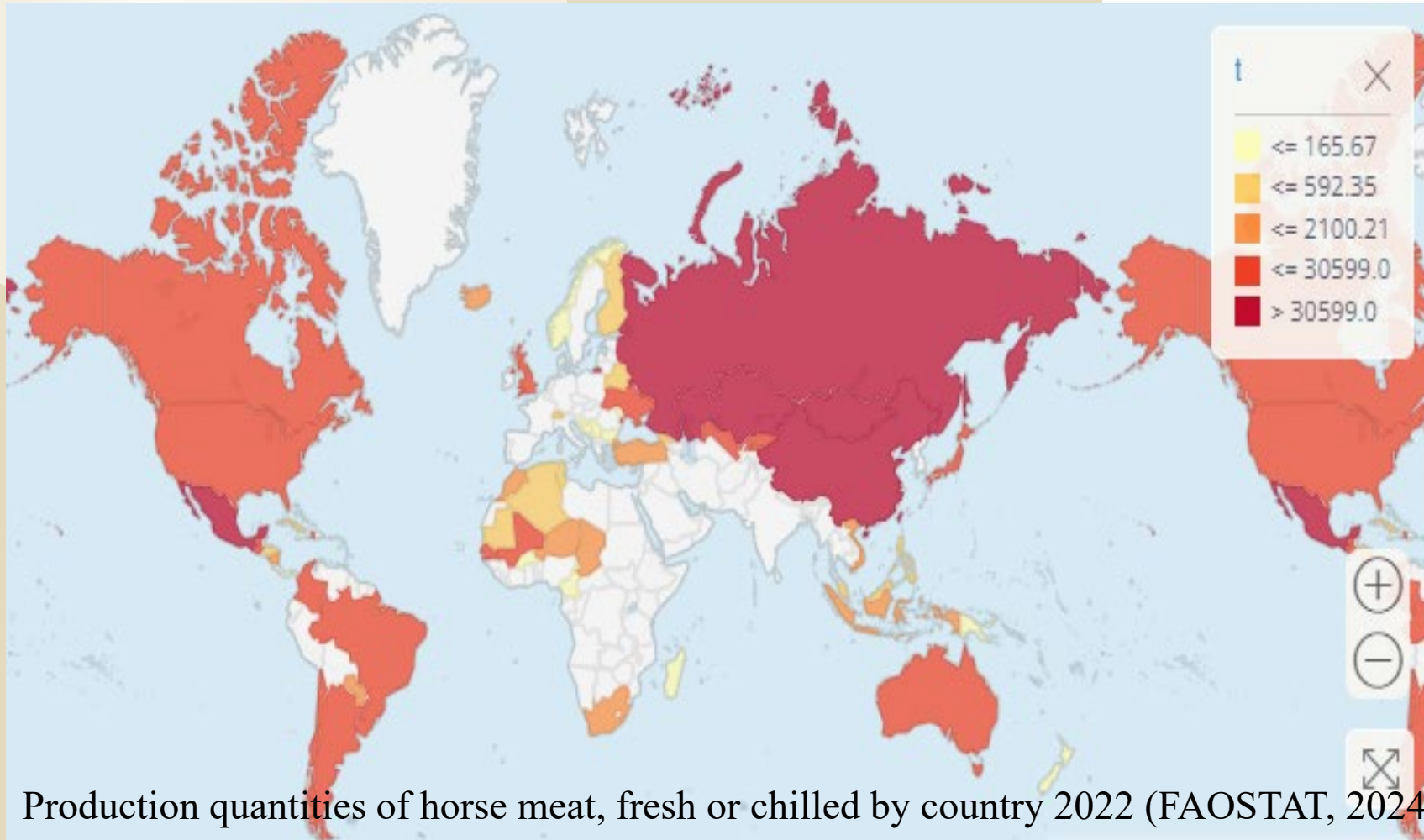
- Horse meat consumption around the World



Production quantities of horse meat, fresh or chilled by country 2022 (FAOSTAT, 2024)

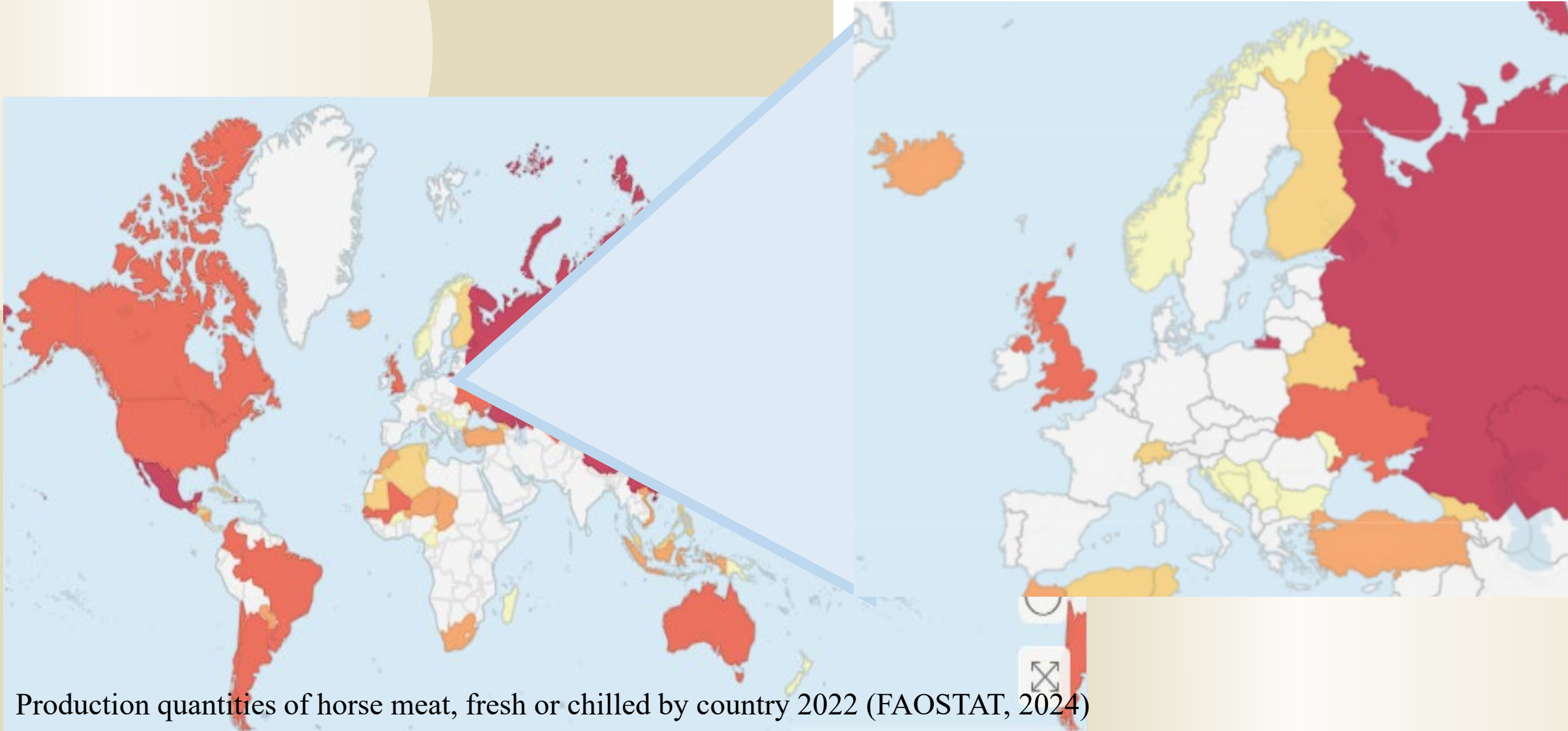
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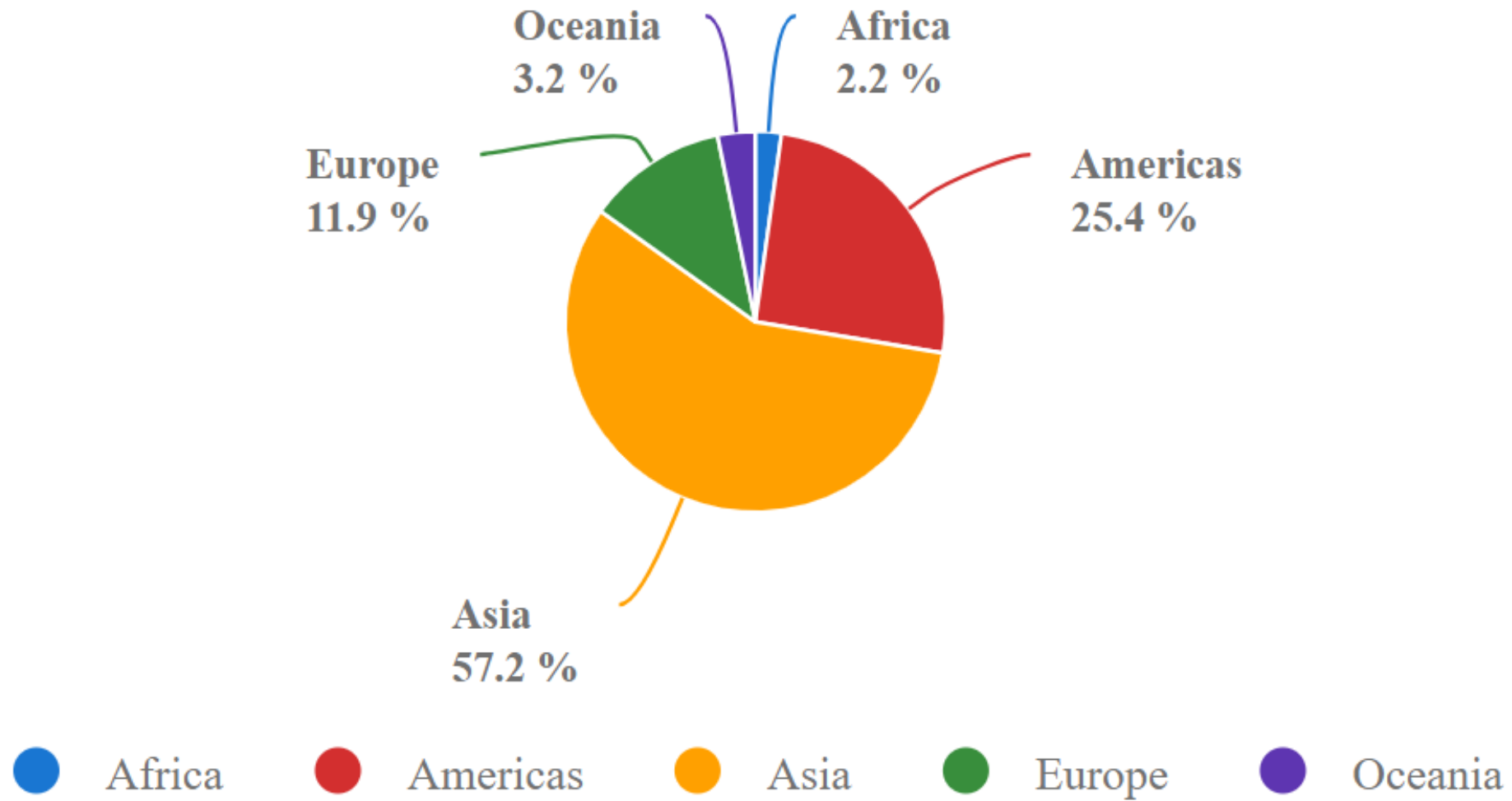
- Objective: Analyze cultural, ethical, and practical perspectives



Introduction

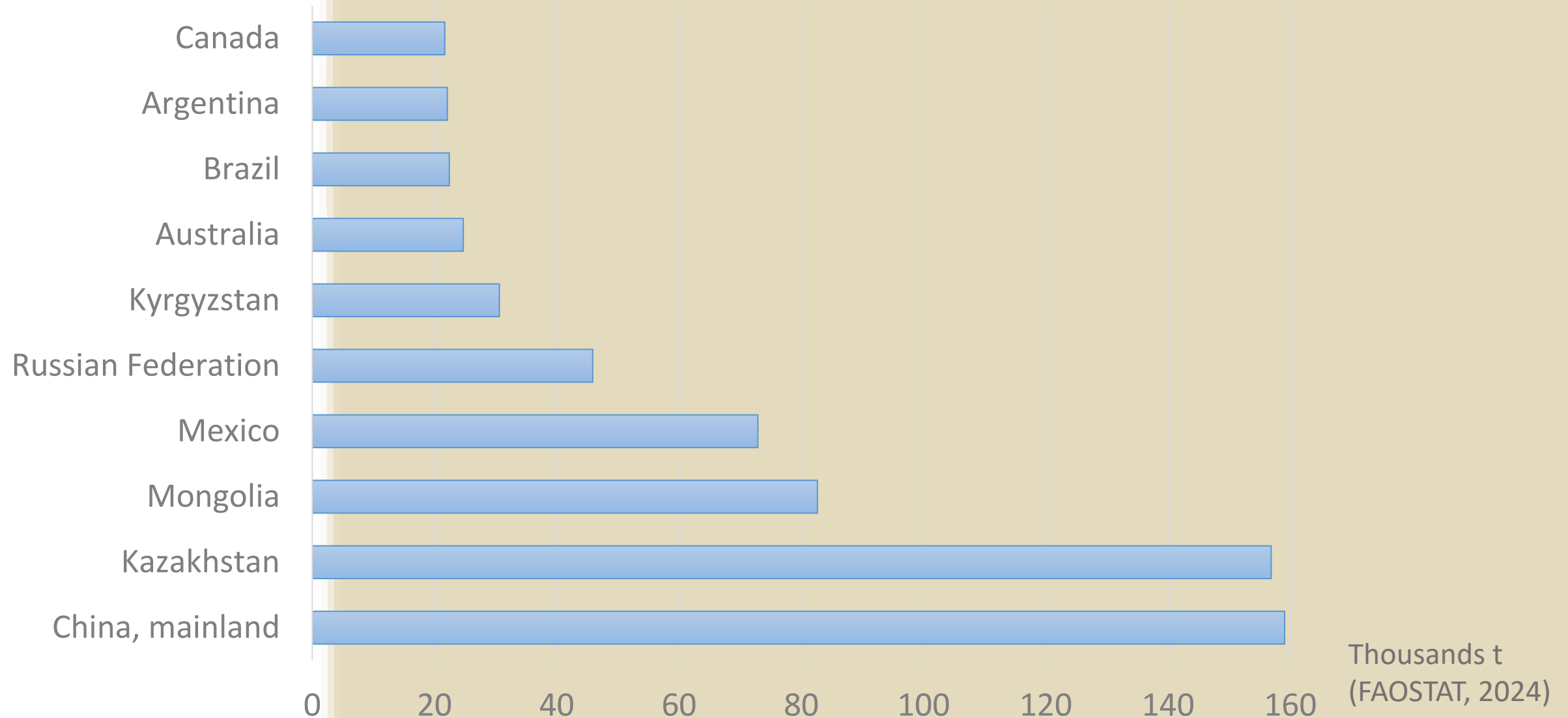
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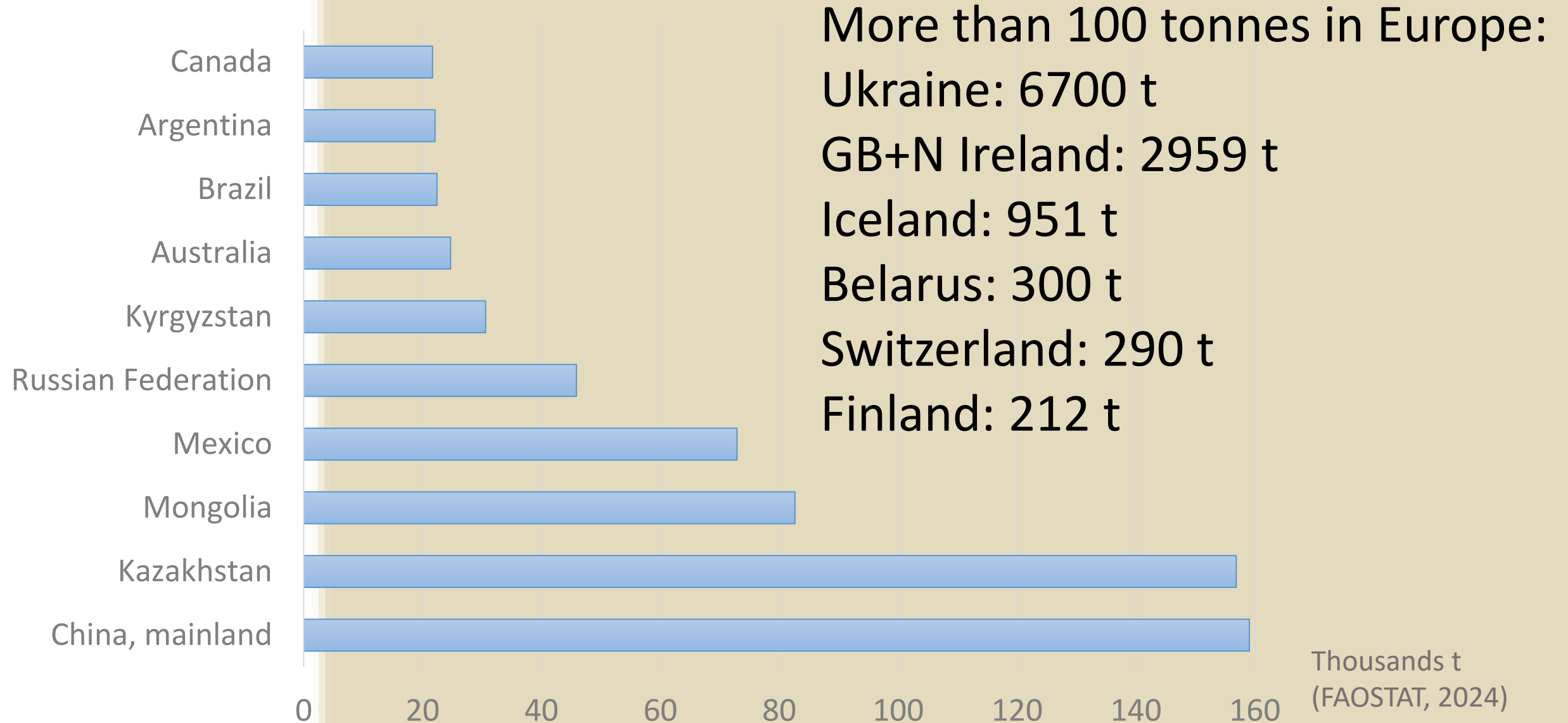


Production share of horse meat, fresh or
chilled by continents
2022 (FAOSTAT, 2024)

World largest horsemeat producer



World largest horsemeat producer



Cultural Perspectives on Horsemeat Consumption

- *Historical Context*

- Countries where horsemeat is traditional (e.g., France, Japan).

- *Cultural Taboos*

- Regions where it is rejected (e.g., USA, UK).

- *Religious Influence*

- Impact of religions that prohibit consumption.



Ethical Concerns in Horse meat Consumption

- *Animal Welfare*: Issues in transportation and slaughter.
- *Moral Status*: Horses as companions vs. food animals.
- *Food Safety*: Risks of mislabeling and veterinary drugs.



Horses are FRIENDS



NOT FOOD!



Practical Aspects of Horse meat Consumption

- *Nutritional Value:*
- good source of important nutrients,
- high protein and trace-minerals contents

	<u>Pig</u> A	<u>Beef</u> A	<u>Sheep</u> A	<u>Horse</u> B	<u>Goat</u> B	<u>Rabbit</u> C	<u>Chicken</u> D
Na,mg	61	58,8	75	44		32,4	33,8
K, mg	338	355	330	400		407	392
Ca, mg	7,7	10	9,2	9,2	9,5	7,0	6,2
P, mg	208	195	208	216		245	243
Mg, mg	26	23,7	23,8	27		25,6	30,1
Fe, mg	0,5	1,5	1,4	4,9	2,0	0,7	0,6
<u>Zn</u> , mg	1,4	3,4	2,3	4,9		1,2	1,0
Se, <u>ng</u>	87,4	47,6	106			79,1	73,5
Cu, mg	0,1	0,1	0,1	0,2		73,6	55,9

Main components and energy value of horse meat, beef, veal, pork, lamb and sheep (Banu, 2009)

	Water (%)	Protein (%)	Lipids (%)	Minerals (%)	Calories (unit/100g)
Horse meat	71,0	22,6	5,5	0,9	136,4
Beef	68,3	20,0	10,7	11,1	181,5
Veal	68,0	20,0	11,0	1,0	184,3
Pork	65,1	19,0	15,0	0,9	217,4
Lamb	72,0	21,0	6,1	0,9	142,8
Sheep	64,8	17,0	17,2	1,0	229,6

Practical Aspects of Horse meat Consumption

Important dietetically factors horse meat vs. beef

<u>Trait</u>	<u>Beef rump</u>	<u>Horse carcass</u>
n-3 FA (mg/100g)	27	267
n-6 FA (mg/100g)	97	299
n-6/n-3 ratio	3.6	1.1
UFA/SFA	0.12	0.59
Vitamin A (µg/100g)	10	21
Vitamin B ₁₂ (µg/100g)	2.2	3.0
Tiamin (µg/100g)	90	110
Riboflavin (µg/100g)	170	150

- *Nutritional Value:*
- favorable fatty acid profile (high concentrations of polyunsaturated fatty acids)
- low cholesterol content)

Cholesterol

<u>Species</u>	<u>mg/100g</u>	<u>Index</u>
<u>Wild boar</u>	155.3	519
<u>Deer</u>	138.3	463
<u>Goat</u>	121.4	406
<u>Beef</u>	76.5	256
<u>Horse</u>	29.9	100

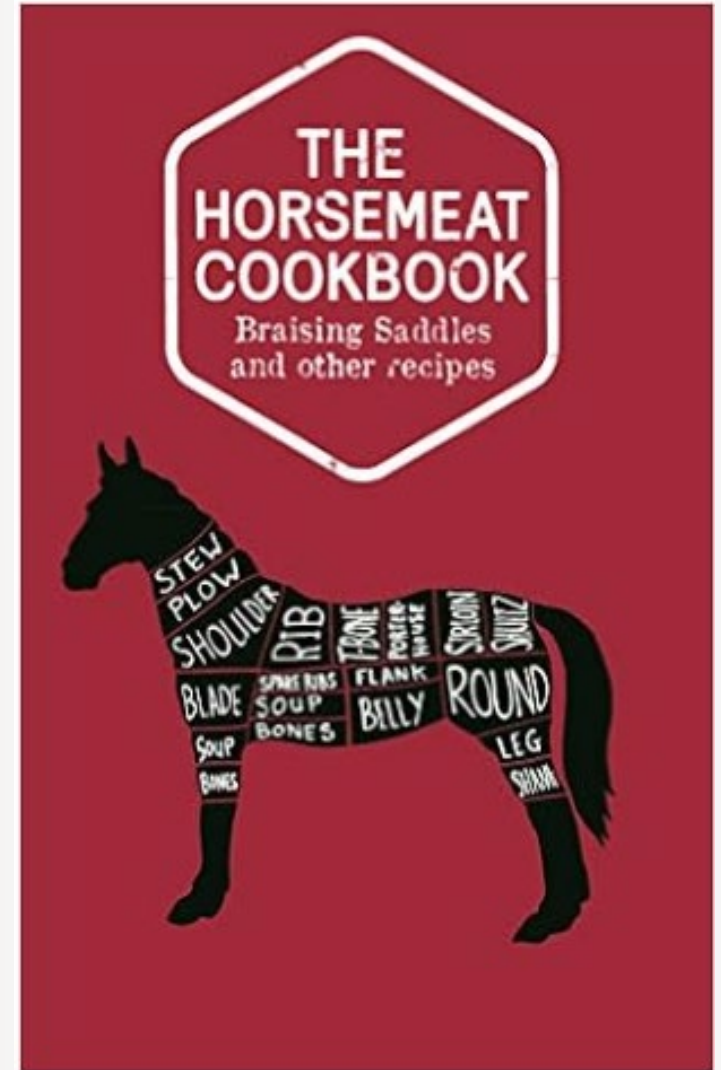
Practical Aspects of Horsemeat Consumption

- *Sustainability:*
Preservation of indigenous horse breeds.
- *Environment:*
Food instead of waste.
- *Economic impact:*
Benefits for the rural economy.



Arguments in Favor of Horse meat Consumption

- *Sustainable source of protein:*
Contributes to food security.
- *Supports genetic diversity:*
Economic benefits, preservation.
- *Cultural respect:*
Importance of respect for different eating habits.
- *Welfare:*
Less transportation, less motivation for the 'grey' market.



The Horsemeat Cookbook, Amazon

Arguments Against Horsemeat Consumption

- *Ethical concerns:*
Treatment of horses, moral objections.
- *Food safety:*
Potential health risks from veterinary drugs.
- *Cultural taboos:*
Societal rejection, moral concerns.



Case Studies in Horse meat Consumption

- France: Long-standing tradition of horse meat consumption.
- UK/USA: Controversies and legal battles.
- Global: Horsemeat mislabeling scandals.



<https://www.rfi.fr/en/france/20130227-horsemeat-scandal-boosts-sales-frances-equine-butchers>



The horsemeat scandal has provided a boost for independent butchers since 7% of shoppers say they are using them more than before. Photograph: David Cheskin/PA



Take home

- Consideration:
 - of the impact of cultural, ethical and emotional perspectives, particularly on the welfare of horses
- Personal decision
 - often motivated by emotion rather than rationality
- Call to action:
 - Educate consumers about nutritional value and horse owners about the consequences of the decision to exclude the horse from the food chain
 - Investigate the impact of meat (no)consumption on horse welfare
 - Better monitoring of the true end of a horse's life
 - Monitor actual drug residues in horsemeat
 - Innovate in the processing of horsemeat to make it more acceptable to consumers



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Thank you for your attention

